

## Section 2. Terms of Reference

### 1-2-1. WORD MEANINGS

As used in this manual:

**a.** *Shall*, or an action verb in the imperative sense, means a procedure is mandatory.

**EXAMPLE-**

The transferring controller *shall* forward this data to the receiving controller

*Issue* an alternative clearance.

*Authorize* the aircraft to taxi.

*Do not clear* an aircraft to land on or takeoff from a closed runway.

**b.** *Should* means a procedure is recommended.

**c.** *May* or *need not* means a procedure is optional.

**d.** *Will* means futurity, not a requirement for the application of a procedure.

**e.** Singular words include the plural.

**f.** Plural words include the singular.

**g.** *Aircraft* means the airframe, crew members, or both.

**h.** *Approved separation* means separation in accordance with the applicable minima in this manual.

**i.** *Altitude* means indicated altitude mean sea level (MSL), flight level (FL), or both.

**j.** *Miles* means nautical miles unless otherwise specified, and means statute miles in conjunction with visibility.

**k.** *Course, bearing, azimuth, heading, and wind direction* information shall always be magnetic unless specifically stated otherwise.

**l.** *Time* when used for ATC operational activities, is the hour and the minute in Coordinated Universal Time (UTC). Change to the next minute is made at the minute plus 30 seconds, except time checks are given to the nearest quarter minute.

**m.** *Runway* means the runway used by aircraft, and in discussions of separation standards is applicable to

helipads with accompanying takeoff/landing courses. (See Pilot/Controller Glossary term- Runway.)

**n.** Flight operations in accordance with the options of *due regard* or *operational* obligates the authorized state aircraft commander to:

**1.** Separate his/her aircraft from all other air traffic; and

**2.** Assure that an appropriate monitoring agency assumes responsibility for search and rescue actions; and

**3.** Operate under at least one of the following conditions:

**(a)** In visual meteorological conditions (VMC); or

**(b)** Within radar surveillance and radio communications of a surface radar facility; or

**(c)** Be equipped with airborne radar that is sufficient to provide separation between his/her aircraft and any other aircraft he/she may be controlling and other aircraft; or

**(d)** Operate within Class G airspace.

**(e)** An understanding between the pilot and controller regarding the intent of the pilot and the status of the flight should be arrived at before the aircraft leaves ATC frequency.

**NOTE-**

**1.** A pilot's use of the phrase "Going Tactical" does not indicate "Due Regard." An understanding between the pilot and controller regarding the intent of the pilot and the status of the flight should be arrived at before the aircraft leaves air traffic control (ATC) frequency.

**2.** The above conditions provide for a level of safety equivalent to that normally given by International Civil Aviation Organization (ICAO) ATC agencies and fulfills U.S. Government obligations under Article 3 of the Chicago Convention of 1944 (Reference (d)), which stipulates there must be "due regard for the safety of navigation of civil aircraft" when flight is not being conducted under ICAO flight procedures.

**o.** *CFR* means Code of Federal Regulations.

## Divergence

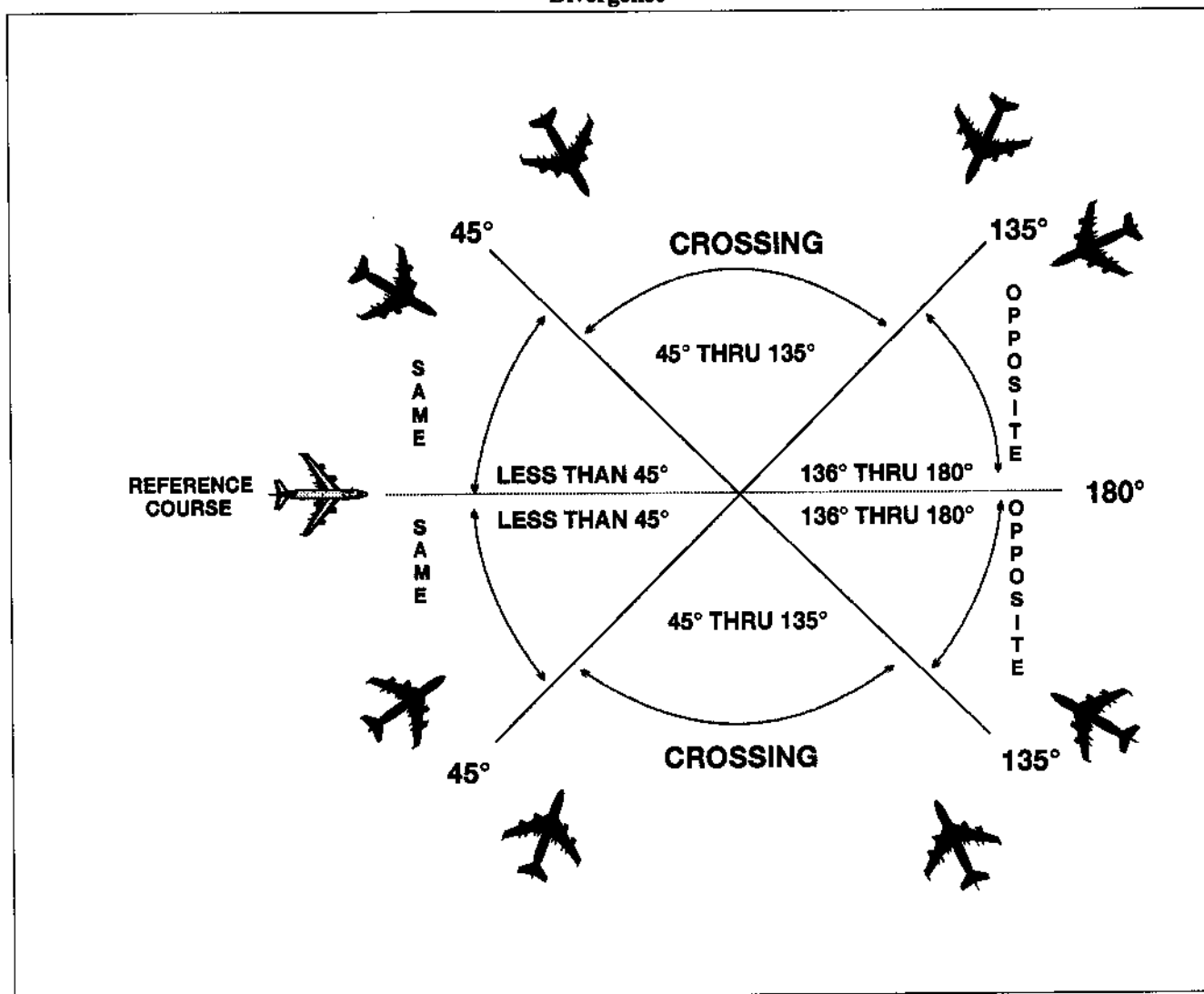


FIG 1-2-1

**1-2-2. COURSE DEFINITIONS**

The following definitions shall be used in the application of the separation criteria in this order.

**NOTE-**

The term "protected airspace," as used in this paragraph, is the airspace equal to one half the required applicable lateral separation on either side of an aircraft along its projected flight path. If the protected airspace of two aircraft does not overlap, applicable lateral separation is ensured.

a. **SAME COURSES** are courses whose protected airspaces are coincident, overlap, or intersect and whose angular difference is less than 45 degrees. (See FIG 1-2-1.)

b. **CROSSING COURSES** are intersecting courses whose angular difference is 45 through 135 degrees inclusive. (See FIG 1-2-1.)

c. **OPPOSITE/RECIPROCAL COURSES** are courses whose protected airspaces are coincident, overlap, or intersect and whose angular difference is 136 through 180 degrees inclusive. (See FIG 1-2-1.)

**1-2-3. NOTES**

Statements of fact, or of a prefatory or explanatory nature relating to directive material, are set forth as notes.

## 1-2-4. REFERENCES

As used in this order, references direct attention to an additional or supporting source of information such as FAA, NWS, and other agencies' orders, directives, notices, CFR's, and Advisory Circulars (AC's).

## 1-2-5. ANNOTATIONS

Revised, reprinted, or new pages are marked as follows:

a. The change number and the effective date are printed on each revised or additional page.

b. A page that does not require a change is reprinted in its original form.

c. Bold vertical lines in the margin of changed pages indicate the location of substantive revisions to the order. Bold vertical lines adjacent to the title of a chapter, section, or paragraph means that extensive changes have been made to that chapter, section, or paragraph.

d. Paragraphs/sections annotated with *EN ROUTE* or *TERMINAL* are only to be applied by the designated type facility. When they are not so designated, the paragraphs/sections apply to both types of facilities (en route and terminal).

e. The annotation, *USAF* for the U.S. Air Force, *USN* for the U.S. Navy, and *USA* for the U.S. Army denotes that the procedure immediately following the annotation applies only to the designated service.

### REFERENCE-

FAAO 7110.65, Military Procedures, Para 2-1-12.

f. **WAKE TURBULENCE APPLICATION** inserted within a paragraph means that the remaining information in the paragraph requires the application of wake turbulence procedures.

g. The annotation **PHRASEOLOGY** denotes the prescribed words and/or phrases to be used in communications.

### NOTE-

Controllers may, after first using the prescribed phraseology for a specific procedure, rephrase the message to ensure the content is understood. Good judgement shall be exercised when using nonstandard phraseology.

h. The annotation **EXAMPLE** provides a sample of the way the prescribed phraseology associated with the preceding paragraph(s) will be used. If the preceding paragraph(s) does (do) not include specific prescribed phraseology, the **EXAMPLE** merely denotes suggested words and/or phrases that may be used in communications.

### NOTE-

The use of the exact text contained in an example not preceded with specific prescribed phraseology is not mandatory. However, the words and/or phrases are expected, to the extent practical, to approximate those used in the example.

## 1-2-6. ABBREVIATIONS

As used in this manual, the following abbreviations have the meanings indicated. (See TBL 1-2-1.)

FAA Order 7110.65 Abbreviations

Abbreviation	Meaning
AAR .....	Airport acceptance rate
AAT-1 .....	Director of Air Traffic
AC .....	Advisory Circular
ACC .....	Area Control Center
ACL .....	Aircraft list
ACLS .....	Automatic Carrier Landing System
ADC .....	Aerospace Defense Command
ADIZ .....	Air defense identification zone (to be pronounced "AY DIZ")
AIM .....	Aeronautical Information Manual
AIRMET .....	Airmen's meteorological information
ALERFA .....	Alert Phase code (Alerting Service)
ALNOT .....	Alert notice
ALS .....	Approach light system
ALTRV .....	Altitude reservation
AMASS .....	Airport Movement Area Safety System
AMB .....	Ambiguity-A disparity greater than 2 miles exists between the position declared for a target by ATTS and another facility's computer declared position during interfacility handoff
AMVER .....	Automated Mutual Assistance Vessel Rescue System
ANG .....	Air National Guard
APR .....	ATC preferred route
ARINC .....	Aeronautical Radio Incorporated
ARIP .....	Air refueling initial point
ARS .....	Air Traffic System Requirements Service
ARSR .....	Air route surveillance radar
ARTCC .....	Air route traffic control center
ARTS .....	Automated Radar Tracking System
ASDE .....	Airport surface detection equipment
ASR .....	Airport surveillance radar
ATA .....	Air Traffic Airspace Management Program

Abbreviation	Meaning
ATC .....	Air traffic control
ATCAA .....	ATC assigned airspace
ATCSCC .....	Air Traffic Control System Command Center
ATIS .....	Automatic terminal information service
ATP .....	Air Traffic Planning and Procedures
ATS .....	Air Traffic Service
ATTS .....	Automated Terminal Tracking Systems
BASE .....	Cloud base
CARCAH .....	Chief, Aerial Reconnaissance Coordination, All Hurricanes
CARF .....	Central Altitude Reservation Function
CAT .....	Clear air turbulence
CDT .....	Controlled Departure Time
CENRAP .....	Center Radar ARTS Presentation
CEP .....	Central East Pacific
CERAP .....	Combined Center/RAPCON
CFR .....	Code of Federal Regulations
CNS .....	Continuous
CPME .....	Calibration Performance Monitor Equipment
CTA .....	Control Area
CTRD .....	Certified Tower Radar Display
CVFP .....	Charted Visual Flight Procedure
CWA .....	Center Weather Advisory
DARC .....	Direct Access Radar Channel
DETRESFA .....	Distress Phase code (Alerting Service)
DF .....	Direction finder
DH .....	Decision height
DME .....	Distance measuring equipment compatible with TACAN
DOE .....	Department of Energy
DP .....	Instrument Departure Procedure
DR .....	Dead Reckoning
DSR .....	Display System Replacement
DVFR .....	Defense Visual Flight Rules
ECM .....	Electronic countermeasure
EDARC .....	Enhanced Direct Access Radar Channel
EDCT .....	Expect Departure Clearance Time
EFC .....	Expect further clearance
ELT .....	Emergency locator transmitter
EOVM .....	Emergency obstruction video map
ETA .....	Estimated time of arrival
FAA .....	Federal Aviation Administration
FAAO .....	FAA Order
FDIO .....	Flight Data Input/Output
FIR .....	Flight Information Region
FL .....	Flight level
FLIP .....	Flight Information Publication
FLY .....	Fly or flying
FMS .....	Flight Management System
FMSP .....	Flight Management System Procedure
FSS .....	Flight Service Station

Abbreviation	Meaning
GCA .....	Ground controlled approach
GNSS .....	Global Navigation Satellite System
GPD .....	Graphics Plan Display
GPS .....	Global Positioning System
HIRL .....	High intensity runway lights
ICAO .....	International Civil Aviation Organization
IDENT .....	Aircraft identification
IFR .....	Instrument flight rules
IFSS .....	International flight service station
ILS .....	Instrument Landing System
INCERFA .....	Uncertainty Phase code (Alerting Service)
INREQ .....	Information request
INS .....	Inertial Navigation System
IR .....	IFR military training route
JATO .....	Jet assisted takeoff
LAHSO .....	Land and Hold Short Operations
LLWAS .....	Low level wind shear alert system
L/MF .....	Low/medium frequency
LORAN .....	Long Range Navigation System
LTD .....	Along Track Distance
Mach .....	Mach Number
MALS .....	Medium intensity approach light system
MALSR .....	Medium approach light system with runway alignment indicator lights
MAP .....	Missed approach point
MARSA .....	Military authority assumes responsibility for separation of aircraft
MCA .....	Minimum crossing altitude
MCI .....	Mode C Intruder
MDA .....	Minimum descent altitude
MDM .....	Main Display Monitor
MEA .....	Minimum en route (IFR) altitude
M-EARTS .....	Micro-En Route Automated Radar Tracking System
MIA .....	Minimum IFR altitude
MIRL .....	Medium intensity runway lights
MLS .....	Microwave Landing System
MNPS .....	Minimum Navigation Performance Specification
MOA .....	Military operations area
MOCA .....	Minimum obstruction clearance altitude
MRA .....	Minimum reception altitude
MSAW .....	Minimum Safe Altitude Warning
MSL .....	Mean sea level
MTI .....	Moving target indicator
MTR .....	Military training route
MVA .....	Minimum vectoring altitude
NADIN .....	National Airspace Data Interchange Network
NAS .....	National Airspace System
NAT .....	ICAO North Atlantic Region
NBCAP .....	National Beacon Code Allocation Plan
NDB .....	Nondirectional radio beacon

Abbreviation	Meaning
NHOP .....	National Hurricane Operations Plan
NIDS .....	National Institute for Discovery Sciences
NM .....	Nautical Mile
NOAA .....	National Oceanic and Atmospheric Administration
NOPAC .....	North Pacific
NORAD .....	North American Aerospace Defense Command
NOS .....	National Ocean Service
NOTAM .....	Notice to Airmen
NRP .....	National Route Program
NTZ .....	No transgression zone
NWS .....	National Weather Service
NWSOP .....	National Winter Storm Operations Plan
ODALS .....	Omnidirectional approach lighting system
OID .....	Operator Interface Device
ONER .....	Oceanic Navigational Error Report
OS .....	Operations Supervisor
OTR .....	Oceanic Transition Route
PAR .....	Precision approach radar
PAR .....	Preferred arrival route
PBCT .....	Proposed Boundary Crossing Time
P/CG .....	Pilot/Controller Glossary
PDAR .....	Preferential departure arrival route
PDR .....	Preferential departure route
PIDP .....	Programmable Indicator Data Processor
PPI .....	Plan position indicator
PVD .....	Plan View Display
RA .....	Radar Associate
RAIL .....	Runway alignment indicator lights
RAPCON .....	Radar approach control facility (USAF)
RATCF .....	Radar air traffic control facility (USN)
RBS .....	Radar bomb scoring
RCC .....	Rescue Coordination Center
RCLS .....	Runway centerline system
RCR .....	Runway condition reading
RE .....	Recent (used to qualify weather phenomena such as rain, e.g. recent rain = RERA)
REIL .....	Runway end identifier lights
RNAV .....	Area Navigation
RTQC .....	Real-Time Quality Control
RVR .....	Runway visual range
RVSM .....	Reduced Vertical Separation Minimum
RVV .....	Runway visibility value
SAR .....	Search and rescue
SELCAL .....	Selective calling system
SFA .....	Single frequency approach
SFO .....	Simulated flameout

Abbreviation	Meaning
SIGMET .....	Significant meteorological information
STAR .....	Standard terminal arrival
STARS .....	Standard Terminal Automation Replacement System
STMC .....	Supervisory Traffic Management Coordinator
STMCIC .....	Supervisory Traffic Management Coordinator-in-charge
STOL .....	Short takeoff and landing
SURPIC .....	Surface Picture
SVFR .....	Special Visual Flight Rules
TAA .....	Terminal Arrival Area
TACAN .....	TACAN UHF navigational aid (omnidirectional course and distance information)
TCAS .....	Traffic Alert and Collision Avoidance System
TCDD .....	Tower Cab Digital Display
TDW .....	Tower Display Workstation
TDZL .....	Touchdown zone light system
TMC .....	Traffic management coordinator
TMU .....	Traffic management unit
TRACON .....	Terminal radar approach control
TRSA .....	Terminal radar service area
UFO .....	Unidentified flying object
UHF .....	Ultra high frequency
URET .....	User Request Evaluation Tool
URET CCLD ..	User Request Evaluation Tool Core Capability Limited Deployment
USA .....	United States Army
USAF .....	United States Air Force
USN .....	United States Navy
UTC .....	Coordinated Universal Time
UTM .....	Unsuccessful transmission message
UUA .....	Urgent Pilot Weather Report
VFR .....	Visual flight rules
VHF .....	Very High Frequency
VMC .....	Visual Meteorological Conditions
VOR .....	VHF navigational aid (omnidirectional course information)
VOR/DME .....	Collocated VOR and DME navigational aids (VHF course and UHF distance information)
VORTAC .....	Collocated VOR and TACAN navigation aids (VHF and UHF course and UHF distance information)
VR .....	VFR military training route
VSCS .....	Voice Switching and Control System
WATRS .....	West Atlantic Route System
WSO .....	Weather Service Office
WST .....	Convective SIGMET

TBL 1-2-1